

BITCOIN VERSUS MONEY: CIVIL-LAW ANALYSIS OF THE CONCEPT

AGNIESZKA GOLDISZEWICZ *

DOI: 10.26399/iusnovum.v13.3.2019.37/a.goldiszewicz

“Bitcoin” (symbols: BLC, XBT) is a type of the so-called cryptocurrencies (virtual digital currency) and, in fact, it is the most popular of them all.¹ It attracts great interest, which has increased significantly, especially last year.² Up till now, bitcoin has been commonly used as a unit of account. At present, because of considerable fluctuation of its value, the function has been gradually losing its importance. Actually, bitcoin itself often becomes an object of transactions.³

Making an attempt to explain what bitcoin is, it is necessary to start with the description of its characteristic features. What draws attention is the fact that bitcoin (like other cryptocurrencies) is electronically generated. It is a unit without a central issuing bank and is created on the internet with the use of a special algorithm by users participating in a transaction, who mine particular bitcoins. Thus, it is not issued within a legal system of any country. A private nature of issuing within the network of users guarantees anonymity concerning the possession and transfer of the amount of bitcoin.

Also security within transaction authorisation is conducive to interest in the phenomenon. Bitcoin is based on the technology of decentralised database (block-

* PhD, Assistant Professor at the Department of Business and Trade Law, Faculty of Law and Administration of Maria Curie-Skłodowska University in Lublin; e-mail: agnieszka.goldiszewicz@poczta.umcs.lublin.pl; ORCID: 0000-0001-6437-6363

¹ The remaining ones are called “altcoin”. These are, e.g.: Ethereum (ETHUSD), Litecoin (LTCUSD), Ripple (XRPUSD), Dash (DSHUSD).

² Big interest in bitcoin and other virtual currencies resulted in the Announcement of Narodowy Bank Polski (Polish Central Bank) and the Polish Financial Supervision Authority (KNF) concerning virtual “currencies”: https://www.knf.gov.pl/komunikat_mobilny?articleId=57363&p_id=18.

³ There are many bitcoin stock exchanges, which record its current exchange rate usually expressing it in a foreign currency (often in American dollar or euro). The website www.blockchain.info provides the exchange rate of bitcoin in USD together with a full history of its rate. The national stock exchanges record it in PLN. The examples of Polish stock exchanges are: Beatcoin.pl; Coinroom.com; BitMarket.pl; nevbit.com.

chain), which ensures security of its creation and then transactions with its use. It is connected with the fact that the currency generated with the use of cryptography⁴ cannot be duplicated, i.e. it is not possible to be used again by the same person (double-spending), copied or falsified.⁵ The production of bitcoin, i.e. its “mining”, is based on complicated algorithms, and the use of appropriate computer software. It takes place within the peer-to-peer network and is performed by its users. In a similar way, the bitcoin system makes it possible to complete transactions between the users with no need for another entity (e.g. a bank) to participate. It is verified by nodes and registered in a decentralised public blockchain. The blockchain is a ledger listing transactions (carried out in a given currency, if designed for a given blockchain) and a transaction system at the same time.

The unquestionable circumstance of bitcoin functioning in civil-law transactions makes it necessary to ask a question whether the unit plays a function of money and if it matches this concept.

Money functions both as an economic term and a legal institution.⁶ The economic meaning of the term is to a great extent shaped with taking into account the role played by money. In the doctrine,⁷ it is indicated that money can be treated as a unit of measure referred to characteristic objects that are goods or services which appear in economic transactions. Its role as an instrument of developed economic relations is emphasised.

Simplifying, it can be stated that the basic functions of money include:⁸

- 1) the function of a common medium of exchange;
- 2) the function of a measure of economic value;
- 3) the function of a store of value.

It is assumed that money treated functionally is what fulfils its essential functions.⁹ At the same time, in literature on economics,¹⁰ it is emphasised that the possibility of fulfilling the above-mentioned functions is strictly connected with a guarantee of the value of money based on its common acceptance. Against this background, the concept of fiduciary (also described as fictitious) money is used and understood as such, that is based on trust in its value and not on commodities (e.g. noble metals).¹¹ The issuing entity (the state) is a guarantor of the value of money, which means that its acceptance results from the public confidence in it.¹²

⁴ That is via a digital data carrier.

⁵ W.J. Kocot, *Kontrakty kreatywne – nowy rozdział w cyberewolucji prawa umów*, [in:] T. Targosz, P. Podrecki, P. Kostański (eds), *Experientia docet. Księga jubileuszowa ofiarowana Pani Profesor Elżbiecie Traple*, Warszawa 2017, p. 946 et seq.

⁶ Thus T. Dybowski, A. Pyrzyńska, [in:] E. Łętowska (ed.), *System Prawa Prywatnego*, Vol. 5: *Prawo zobowiązań – część ogólna*, Warszawa 2006, p. 217.

⁷ Z. Radwański, A. Olejniczak, *Zobowiązania – część ogólna*, Warszawa 2008, p. 54.

⁸ Compare *ibid.*; also compare T. Dybowski, A. Pyrzyńska, [in:] E. Łętowska (ed.), *System, op. cit.*, Vol. 5, p. 217; W. Czachórski, A. Brzozowski, M. Safjan, E. Skowrońska-Bocian, *Zobowiązania. Zarys wykładu*, Warszawa 2009, p. 72.

⁹ G. Żmij, *Prawo waluty*, Warszawa 2002, p. 38.

¹⁰ P. Schaal, *Pieniądz i polityka pieniężna*, Warszawa 1996, pp. 23–27.

¹¹ The term “fiduciary money” refers to trust; the Latin word *fides* means trust.

¹² Thus M. Michna, *Bitcoin jako przedmiot stosunków cywilnoprawnych*, Warszawa 2018, p. 10.

Prima facie, bitcoin shows the potential to fulfil all the functions of money.¹³ Its role of a medium of payment is ensured, inter alia, by the easiness of portability, storage and acceptance as an instrument of exchange that it has gained so far. The unit is also able to function as a measure of value being a point of reference used to establish the value of goods and services. Finally, bitcoin can be used to store a value in time. Undoubtedly, it is not subject to expiration; acquired once, it can be theoretically retained timelessly.¹⁴ It should be noticed, however, that the roles of bitcoin as a medium of exchange, a measure of value and a store of value have been decreasing recently. It results from the weakening acceptance of the unit.

It is worth highlighting that the value of bitcoin, like of fiduciary money, results from the market's trust in the issuer.¹⁵ The above-mentioned acceptance of the unit is decreasing because of frequent and sudden changes in the value of this cryptocurrency. On the other hand, this circumstance is determined by the fact that the issuer is private and decentralised, and does not possess sufficient instruments to stabilise the value of the unit it generates.

At the same time, the lack of legal regulation¹⁶ of the phenomenon, from which bitcoin emanates, is conducive to the occurrence of difficulties in the assessment of the legal consequences of actions involving the unit. The unidentified nature of bitcoin,¹⁷ in conjunction with its functioning in the practice of transactions, raises a justified question whether it can be recognised as money or its type. Thus, there is a need to carry out a legal analysis of the phenomenon.

It is commonly assumed in the jurisprudence¹⁸ that a monetary amount, a monetary unit and a monetary denotation are designations of money. Depending of whether all the three elements occur, one can speak about money *sensu stricto* or *sensu largo*.¹⁹ A narrow meaning of money is referred to media of payment (legal tenders), which the state gives the power to discontinue liabilities (i.e. cash).²⁰ On the other hand, within the broad meaning, money refers to all traditionally recognised media of payment (national and foreign currency) as well as all forms of securities that amount to a certain sum of monetary units.

¹³ See T. Gruszecki, *Teoria pieniądza i polityka pieniężna. Rys historyczny i praktyka gospodarcza*, Kraków 2004, p. 70.

¹⁴ Thus M. Michna, *Bitcoin*, *op. cit.*, pp. 8–14.

¹⁵ Also see F. Zoll, [in:] A. Olejniczak (ed.), *System Prawa Prywatnego*, Vol. 6: *Prawo zobowiązań – część ogólna*, Warszawa 2018, pp. 1080–1082.

¹⁶ The concept of digital currencies is defined in two bills: Bill concerning the Central Account Database (UD28) and Bill concerning the prevention of money laundering and terrorist financing (UC52), prepared by the Minister of Development and Finance.

¹⁷ Bitcoin is not defined in a uniform way, i.e. it is described as e.g. digital currency, cryptocurrency and digital money. For more, see K. Zacharzewski, *Bitcoin jako przedmiot stosunków prawa prywatnego*, *Monitor Prawniczy* No. 21, 2014, pp. 1132–1133.

¹⁸ A. Olejniczak, [in:] A. Kidyba (ed.), *Kodeks cywilny. Komentarz*, Vol. III: *Zobowiązania. Część ogólna*, Warszawa 2014, p. 76; T. Dybowski, A. Pyrżyńska, [in:] E. Łętowska (ed.), *System, op. cit.*, Vol. 5, p. 217.

¹⁹ For the issue of differentiation of money within its the broad and narrow meaning, see W. Czachórski, A. Brzozowski, M. Safjan, E. Skowrońska-Bocian, *Zobowiązania, op. cit.*, p. 72.

²⁰ See T. Dybowski, A. Pyrżyńska, [in:] E. Łętowska (ed.), *System, op. cit.*, Vol. 5, p. 217; in their opinion, we cannot speak about money in case there is a lack of joint occurrence of a monetary unit, a monetary amount and a monetary denotation.

The category of a monetary unit has a considerable importance for the concept of money. The term is used to determine a normative unit of the measure of value.²¹ It is always part of the foundation of the (national and foreign) monetary system. In the light of that, a bitcoin undoubtedly constitutes a unit of measure, which equals 100 million satoshi. However, unlike a monetary unit, bitcoin is not normative in nature. It is not a unit established by the law as a public unit of account playing the role of a common means of settlement of liabilities.

A monetary unit on which a national or supranational monetary system is based is a currency of a particular state. Thus, there is an inseparable relation between money and a (national, foreign or international) legal system that constitutes it. In accordance with Article 1 para. 2 of the Act of 7 July 1994 on złoty denomination,²² złoty (PLN) is a Polish monetary unit, which is subdivided into a hundred grosz. Apart from a national currency, foreign currencies can be distinguished.²³ The differentiation is connected with the state where a currency is issued and its central bank, which is a public issuer. As a result, it is recognised as a legal medium of payment, i.e. such that has a common power to settle liabilities. In the light of the provisions of Article 2 paras 7 and 10 of the Act of 27 July 2002: Law on foreign currencies,²⁴ the concept of the Polish currency,²⁵ like in case of a foreign currency,²⁶ should be referred to monetary denominations that have the status of legal tenders. Therefore, it is clear that their issue has a public nature connected with the national payment system.

However, the above-mentioned features cannot be attributed to bitcoin. As a result of the private nature of its issue and functioning independent of the state payment systems, the unit goes beyond the framework of a national as well as international currency. Its private and decentralised issue does not allow for granting it a status of a guaranteed legal tender and common power to settle liabilities. Finally, bitcoin, unlike a (national or foreign) currency, cannot be related to a monetary denomination.

In turn, a monetary amount is recognised as a particular property value expressed in monetary units that constitute the measure of that value.²⁷ It is an amount expressed with the use of a monetary unit. Also in the light of that, there is

²¹ P. Machnikowski, [in:] E. Gniewek, P. Machnikowski (eds), *Kodeks cywilny. Komentarz*, Warszawa 2014, p. 620.

²² Dz.U. 1994, No. 84, item 386, as amended.

²³ See Z. Radwański, A. Olejniczak, *Zobowiązania, op. cit.*, pp. 56, 59. Beside a national and foreign currency, sometimes a category of a private currency is distinguished; M. Lemkowski, [in:] M. Gutowski (ed.), *Kodeks cywilny*, Vol. I: *Komentarz. Art. 1–449¹¹*, Warszawa 2016, p. 1273.

²⁴ Consolidated text, Dz.U. 2017, item 679; hereinafter LFC.

²⁵ The monetary denominations (notes and coins) that are legal tenders in Poland as well as those which are withdrawn from the market but are subject to exchange constitute the Polish currency (Article 2 para. 1(7) LFC).

²⁶ Foreign currencies are monetary denominations (notes and coins) that are legal tenders abroad and those which are withdrawn from the market but are subject to exchange; the convertible monetary units used in international transactions settlement, especially the unit of account used by the International Monetary Fund, are treated equally to foreign currencies (Article 2 para. 1(10) LFC).

²⁷ A. Olejniczak, [in:] A. Kidyba (ed.), *Kodeks, op. cit.*, Vol. III, pp. 75–76.

no doubt that in the practice of transactions the value of parties' payments (i.e. the amount) is more and more often expressed in bitcoin.²⁸ Still, it is the sum of units other than monetary units.

Finally, a monetary denotation that is a designation of money is a special type of a movable object on which monetary units are expressed.²⁹ Polish monetary denotations include notes and coins accounting for złoty and grosz (Article 31 of the Act of 29 August 1997 on Narodowy Bank Polski [Central Bank of Poland])³⁰. In case of bitcoin, there are no such physical carriers (i.e. notes or coins). Therefore, the category of a monetary denotation is not part of the bitcoin essence. It operates in the form of a digital entry in a decentralised encrypted database.

The analysis of bitcoin against the background of money designations does not allow one to recognise it as money, at least within the precise meaning of the term. It is not a legal tender in the form of cash, which the state grants the power to settle financial liabilities.³¹ The essence of bitcoin is the fact that it functions in a dematerialised form. Finally, its private issue outside the public legal system of whatever country makes it able to settle only those liabilities that the parties to have agreed upon (Article 353¹ of the Act of 23 April 1964: Civil Code)³².

As a result, there is still the issue of the position of bitcoin within the concept of money *sensu largo* to be discussed. The scope of this term, apart from cash, includes various securities (bills of exchange, cheques, mortgage bonds or bonds) accounting for certain sums of monetary units.³³ The above-mentioned group also includes elements of which a monetary denotation is not an obligatory designation. Thus, not every type of money *sensu largo* will have the common power to settle liabilities.

The admissibility of transferring amounts of money without the use of monetary denotations but with the use of dematerialised instruments (a surrogate for money) might prescribe referring bitcoin in particular to one of the two forms of non-cash money³⁴, i.e. electronic money³⁵. In accordance with Article 2(21a) of the Act of 19 August 2011 on payment services,³⁶ electronic money is a monetary value stored electronically, including magnetically, issued with an obligation of its purchase in order to carry out payment transactions, accepted by entities other than the issuer

²⁸ The possibility of using it as a mutual payment in contracts concerning an object or right is discussed in K. Zacharzewski, *Praktyczne znaczenie bitcoina na wybranych obszarach prawa prywatnego*, Monitor Prawniczy No. 4, 2015, p. 187.

²⁹ A. Olejniczak, [in:] A. Kidyba (ed.), *Kodeks, op. cit.*, Vol. III, p. 76; P. Machnikowski, [in:] E. Gniewek, P. Machnikowski (eds), *Kodeks, op. cit.*, p. 621.

³⁰ Consolidated text, Dz.U. 2017, item 1373.

³¹ For more on money within its strict meaning, see A. Brzozowski, [in:] K. Pietrzykowski (ed.), *Kodeks cywilny*, Vol. I: *Komentarz. Art. 1–449*¹⁰, Warszawa 2015, p. 1133.

³² Act of 23 April 1964: Civil Code, consolidated text, Dz.U. 2017, item 459.

³³ *Ibid.*; also see S. Grzybowski, [in:] S. Grzybowski (ed.), *System Prawa Cywilnego*, Vol. I: *Część ogólna*, Wrocław 1985, p. 444.

³⁴ The forms of non-cash money include bank money and electronic money. Electronic money is dematerialised, similarly to bank money but, unlike the latter, it does not have to be connected with a bank account; thus A. Olejniczak, [in:] A. Kidyba (ed.), *Kodeks, op. cit.*, Vol. III, pp. 76–78; A. Olejniczak, Z. Radwański, *Zobowiązania, op. cit.*, pp. 57–58.

³⁵ *Ibid.*

³⁶ Consolidated text, Dz.U. 2017, item 2003.

of electronic money. It is emphasised in literature,³⁷ however, that bitcoin does not match this definition. It is mainly due to reference made to money in its statutory form laid down by the legislator. The essence of electronic money includes, inter alia, the fact that on the request of the entity possessing electronic money, the issuer must exchange value expressed in it into cash. In case of bitcoin, the requirement cannot be met because there is no obligation of its purchase. Unlike electronic money, there is no issuer of bitcoin. Users create it in the peer-to-peer network with no superior entity present.

The exclusion of the possibility of recognising bitcoin as the equivalent of monetary denotations inspires considering its classification as another instrument that makes it possible to transfer monetary amounts (e.g. a security). It is rightly indicated,³⁸ however, that bitcoin cannot be recognised as a security in any of its forms (including dematerialised ones). This is because it does not meet the requirements laid down in Article 921⁶ and the following of Civil Code or definitions of particular types of securities determined in special regulations. The recognition of bitcoin as a security in the light of the Act of 29 August 2005 on transactions in financial instruments³⁹ is excluded. It was not taken into account in the catalogue of securities laid down in Article 3(1a) ATFI⁴⁰ and it does not constitute another transferable property right referred to in Article 3(1b) ATFI⁴¹ (i.e. a derivative right). Bitcoin does not incorporate the right to purchase or acquire securities and the nature of its issue differs from that of securities. A miner of bitcoin, i.e. a network user who has participated in its issue, acting within the framework of a peer-to-peer network, remains anonymous. That is why, it is not possible to speak about an issuer of bitcoin. All the network users are.

In the light of Article 2 para. 1(2) ATFI, the lack of possibility of identifying an issuer of bitcoin is an argument for inadmissibility of recognising it as a financial instrument. Thus, it is not possible to establish a legal relation between an issuer and a purchaser of bitcoin. Still, the existence of such a relation is a constructive feature of financial instruments.⁴²

The common denominator in the form of dematerialisation or a possibility of its occurrence inspires an analysis of bitcoin in comparison with financial instruments. However, as it is rightly indicated in literature,⁴³ this dematerialisation is different in nature. In case of dematerialised financial instruments, the rights resulting from

³⁷ K. Zacharzewski, *Praktyczne, op. cit.*, p. 194.

³⁸ J. Dąbrowska, *Charakter prawny bitcoin*, *Człowiek w cyberprzestrzeni* No. 1, 2017, p. 64.

³⁹ Consolidated text, Dz.U. 2017, item 1768; hereinafter ATFI.

⁴⁰ In accordance with this provision, whenever there is reference made to securities, the term means: shares, rights offered within the meaning of the provisions of the Act of 15 September 2000: Commercial Companies Code, rights to shares, subscription warrants, depositary receipts, bonds, covered bonds, investment certificates and other transferable securities, including those incorporating property rights resulting from shares or debts, issued based on adequate provisions of the Polish or foreign law.

⁴¹ In accordance with the provision, securities are also other transferrable property rights that result from the issue, incorporating rights to purchase or acquire securities determined in subsection (a) or carried out via pecuniary settlement.

⁴² Thus K. Zacharzewski, *Praktyczne, op. cit.*, p. 193.

⁴³ *Ibid.*

the issue related activities occur as an entry in a deposit account, while in case of bitcoin, it is a characteristic algorithm occurring as an entry in the internet cloud.

The presented deliberations do not allow recognising bitcoin as money *sensu stricto* or a security that is money *sensu largo*. It is not a financial instrument, either.⁴⁴

At the same time, it should be taken into account that in practice it is a commonly used unit of account with the use of which the value of liability is determined. The parties to a contract, within their freedom of entering into contracts (Article 353¹ Civil Code) decide whether it will be used in this character. As a result, to the extent agreed upon by the parties and within the scope determined in advance, bitcoin is granted the power to settle liabilities. This way, the system that uses bitcoin is closed, which means it does not possess any value outside the circle in which it functions.

The above-presented features place bitcoin in the category of private money. This is so because of its essence, which includes the possibility of using it in private transactions between parties to a contract. This results from the fact that it does not have the status of a legal tender as it is not related to any state system of payment. It operates in the practice of turnover in a way similar to money. In the jurisprudence,⁴⁵ bitcoin is sometimes classified within the category of private currencies distinguished beside national and foreign currencies. What supports such classification is its decentralised system of issue implemented outside a legal system of whatever country. Approving of the above opinion, it is worth noticing that it seems more appropriate to place bitcoin in a broader (than a private currency) category of private money. The term “currency” should be associated with a monetary denotation, while the concept of money has a broader meaning. It also covers other instruments used to transfer amounts of money.

As private money, bitcoin represents the three categories of values typical of money.⁴⁶ Firstly, it is the face value of money. In case of money *sensu stricto*, it should be interpreted as a constant value given to a monetary denotation by the state and expressed in the form of an adequate inscription on a note or a coin. It results from legal regulations constituting the so-called currency system, which is a guarantee of durability. In case of bitcoin, we can only speak about a quasi-face value because the authority of the state does not back the private money analysed here. The creator of the bitcoin software has given value to particular units⁴⁷ and network users mining them, called miners, have created them. As far as the aspect of the value of bitcoin is concerned, it is constant.

Secondly, the exchange value can be distinguished. In case of both bitcoin and legal money, it is determined in relation to other currencies and it is interchangeable.

Thirdly, it is the purchasing power. It is expressed as the amount of goods and services that can be purchased for its unit in a given place and at a given time. The

⁴⁴ Thus J. Dąbrowska, *Charakter, op. cit.*, pp. 64–67.

⁴⁵ See M. Lemkowski, [in:] M. Gutowski (ed.), *Kodeks, op. cit.*, Vol. I, p. 1273.

⁴⁶ For more, see W. Czachórski, A. Brzozowski, M. Safjan, E. Skowrońska-Bocian, *Zobowiązania, op. cit.*, p. 72; T. Dybowski, A. Pyrzyńska, [in:] E. Łętowska (ed.), *System, op. cit.*, Vol. 5, p. 230.

⁴⁷ Satoshi Nakamoto is recognised as the creator of the system.

value can change over time. However, the scale of change differs in case of legal money and bitcoin. Unlike in case of money *sensu stricto*, frequent and sudden fluctuation of the purchasing power is typical of bitcoin.

Attribution of the status of private money to bitcoin is not against the possibility of placing it in the position of the measure of value different from that of money.⁴⁸ In accordance with Article 385¹ § 2 Civil Code, parties can make a reservation in a contract that the amount of payment will be determined in accordance with a non-monetary measure of value. The possibility is strictly connected with the exercise of the principle of the freedom of entering into contracts.⁴⁹ Thus, in such a case, the value of payment is determined by the indication of the number of monetary units (a nominal payment amount) but is described as a value of payment with the use of a non-monetary measure of value.⁵⁰ Statute does not stipulate any restrictions concerning the types of a measure of value that parties to a contract can use. In the practice of transactions, the most common compensatory clauses include currency, goods, gold and index related clauses.⁵¹ As a result, the private money generated by a computer program that is recognised by the parties as a unit appropriate to express the value of a monetary payment can be a measure to be used for the contractual indexation.

The use of bitcoin to measure the value of a monetary payment, thus to its contractual indexation, raises a question whether it is admissible to apply the principle of nominalism towards the payment expressed in a unit of bitcoin. *Prima facie*, it might seem that in the light of no grounds to recognise bitcoin as money within the precise meaning of the term, the possibility should be excluded. In accordance with Article 358¹ § 1 Civil Code, if an amount of money is an object of liability at the moment of its occurrence, its settlement takes place when the nominal amount is paid, unless special provisions stipulate otherwise. The principle of minimalism expresses a rule that a monetary liability must be settled by payment of the monetary amount determined when the debt has occurred. At the same time, the scope of its application covers liabilities expressed in both Polish and foreign currency.⁵² In the light of the above, the direct application of Article 358¹ § 1 Civil Code is excluded. On the other hand, it seems that, by careful analogy, the principle of minimalism can also be applied to private money.⁵³ Thus, in connection with its application, the settlement of a payment expressed in bitcoin takes place when the nominal amount is paid, provided that at the moment of the liability occurrence it was in bitcoin. The payment of the nominal amount expressed in private money settles liability in the same way as in case of any other currency (national or foreign

⁴⁸ Thus K. Zacharzewski, *Bitcoin, op. cit.*, p. 1135 et seq.

⁴⁹ See the Supreme Court judgment of 8 December 2006, V CSK 339/06, LEX No. 610102.

⁵⁰ P. Machnikowski, [in:] E. Gniewek, P. Machnikowski (eds), *Kodeks, op. cit.*, pp. 624–625.

⁵¹ For more, see A. Olejniczak, [in:] A. Kidyba (ed.), *Kodeks, op. cit.*, Vol. III, p. 82.

⁵² P. Machnikowski, [in:] E. Gniewek, P. Machnikowski (eds), *Kodeks, op. cit.*, p. 625.

⁵³ The authors who believe that the principle of minimalism should cover a payment expressed in bitcoin are K. Zacharzewski, *Bitcoin, op. cit.*, p. 1136; M. Lemkowski, [in:] M. Gutowski (ed.), *Kodeks, op. cit.*, Vol. I, p. 1278; the author who is against that possibility is F. Zoll, [in:] A. Olejniczak (ed.), *System, op. cit.*, Vol. 6, p. 1082.

one). The exclusion of the application of the principle would make the implementation of the function of money, which bitcoin plays in transactions, impossible.

The adoption of the principle of minimalism, within its broad meaning, towards the payment expressed in bitcoin results in the risk of considerable change in its value. Private money, which is analysed here, is subject to significant fluctuation of its value.⁵⁴ Therefore, it seems there is a justified need to include indexation clauses by parties in contracts (compare Article 358¹ § 2 Civil Code). It seems that, e.g. money or a noble metal (gold) can be a measure.

It is necessary to highlight the risk connected with the lack of a contractual indexation clause against the occurrence of the change in the bitcoin purchasing power. It seems that indexation of the payment expressed in bitcoin by a court is inadmissible. It might seem that the basic reason for this exclusion consists in the circumstance that the scope of application of indexation by a court has been narrowed to the payment expressed in money *sensu stricto*, and bitcoin cannot be recognised as such. However, the main reason why the possibility should be excluded is that the substantive legal requirement for indexation is, first of all, the change in the purchasing power of money that takes place after the liability has occurred (Article 385¹ § 3 Civil Code). Thus, the “significance” of the change, its considerable nature is required. The issue is important because the modification of value is always within the scope of a standard contractual risk, i.e. one that each party to a pecuniary liability should take into account. Finally, it is assumed that parties should predict certain fluctuation of the purchasing power of money.⁵⁵ In case of bitcoin, a considerable change in the purchasing power is an absolutely natural phenomenon. The substantial fluctuation of value is typical of its essence. For reasons similar to those under Article 358 § 4 Civil Code, the exclusion of admissibility of indexation by a court is justified. Parties, determining the value of a payment in a unit of bitcoin, should be aware of changes it is subject to. They can make a reservation concerning this circumstance in the form of a contractual indexation clause.

Perceiving bitcoin as a private currency also raises a question about admissibility of the application of the principle for the Polish currency use laid down in Article 358 Civil Code. The solution adopted in Article 358 § 1 Civil Code stipulates that in case a payment is determined in a foreign currency, a debtor can settle it in the Polish currency. The rules can be changed following a special statutory provision, a legal action creating or changing the content of the liability as well as a court judgment.

What weighs against the possibility of directly applying Article 358 Civil Code is, first of all, the lack of recognition of bitcoin as a foreign currency referred to in the analysed provision. As it results from the above discussion, bitcoin is not money. Thus, the central bank cannot determine its value, which excludes its cal-

⁵⁴ The value of *bitcoin* is subject to considerable fluctuations throughout years, months and even days. According to Bitcoin BitStamp, the value of this private currency on 21 January 2018 accounted for USD 11,600. In the preceding three- and six-month periods it was USD 5,600 and 2,670, respectively. On the other hand, on 13 February 2018 its value was at the level of USD 8,698.

⁵⁵ P. Machnikowski, [in:] E. Gniewek, P. Machnikowski (eds), *Kodeks, op. cit.*, p. 627.

calculation in accordance with Article 358 § 2 Civil Code.⁵⁶ At the same time, there are no obstacles to incorporating a rule parallel to that laid down in Article 385 Civil Code in the content of a legal action in which a payment has been expressed in a private currency (e.g. bitcoin). When calculating the value of this private currency, one can take into account the exchange rate of this unit (e.g. the exchange rate of bitcoin announced at the Polish stock exchange) on the day when the payment is due, unless a legal action or a court judgment stipulate otherwise (compare Article 358 § 2 Civil Code). It is worth mentioning that there are no obstacles to choose a recalculation day indicated by the parties different from the one laid down in the above-mentioned provision. Thus, the regulation under Article 358 Civil Code can be applied to bitcoin by virtue of the parties' will at the most.

Eventually, there is a doubt concerning the way in which contracts where the payment is expressed in bitcoin should be dealt with. The assessment of a contract in which the exchange of the units of bitcoin into a determined pecuniary amount expressed in the Polish or foreign currency occurs does not cause serious problems. In the jurisprudence, it is uniformly classified as sale.⁵⁷ However, the assessment of a contract where bitcoin is a mutual liability consisting in the transfer of ownership of objects or rights is subject to debate.⁵⁸ It seems that there are no obstacles to recognise a contract as sale by virtue of which the ownership of objects or rights is transferred in exchange for a pecuniary payment expressed in the measure of value in the form of bitcoin (Article 358 § 2 Civil Code).⁵⁹ In such a case, an indexation clause constitutes the basis for establishing what the final price is, i.e. how many units of the Polish currency a buyer should pay.⁶⁰ What raises doubts is the situation when the payment is expressed directly in bitcoin. This is so because one should take into account that the obligation to pay a price belongs to *essentialia negotii* of the contract of sale. Moreover, the concept of a "price" characteristically describes pecuniary payments that must be expressed in money.⁶¹ If the equivalent of the sold object is determined in a form different from a pecuniary payment, such a contract as a whole or in an adequate scope usually takes the form of an exchange agreement.⁶² Thus, a contract in which one party declares to transfer the ownership of an object and the other undertakes to provide an amount of bitcoin should be classified as exchange (Article 603 Civil Code). By virtue of reference made in Article 604 Civil Code, the relation resulting from this contract is, by analogy, subject to regulations concerning sale.

⁵⁶ Thus M. Lemkowski, [in:] M. Gutowski (ed.), *Kodeks, op. cit.*, Vol. I, p. 1273.

⁵⁷ Thus K. Zacharzewski, *Praktyczne, op. cit.*, p. 187, J. Dąbrowska, *Charakter, op. cit.*, p. 59.

⁵⁸ See J. Dąbrowska, *ibid.*, in whose opinion it is neither sale nor exchange.

⁵⁹ Thus K. Zacharzewski, *Praktyczne, op. cit.*, p. 187.

⁶⁰ We can speak about the introduction of an indexation clause in case, interpreting the declarations of the parties' will, it is possible to establish that their unanimous intention was to express and lead to the payment of the price in the Polish money, as regards the value indicated in the contract (see the Supreme Court judgment of 20 December 1996, III CKU 14/96, OSP 1997, No. 4, item 90).

⁶¹ Thus J. Jezioro, [in:] E. Gniewek, P. Machnikowski (eds), *Komentarz, op. cit.*, p. 1071.

⁶² Thus E. Habryn-Chojnacka, [in:] M. Gutowski (ed.), *Kodeks cywilny*, Vol. II: *Komentarz do art. 450–1088*, Warszawa 2016, p. 309.

The above-presented analysis makes it possible to assume that bitcoin neither matches the concept of money *sensu stricto* nor even *sensu largo*. It is not a financial instrument, either. However, due to its role played in transactions, it can be perceived as the category of private money. This subsequently creates the possibility of assessing the way in which the settlement of a liability expressed in bitcoin is made, partially through the prism of institutions typical of pecuniary payments. Such an approach is the only one that does not misinterpret the essence of bitcoin, which was intended to be an alternative to money. A different assessment of the phenomenon, denying it a feature of any form of money, would have to lead to a conclusion that a payment made in bitcoin is not a pecuniary one. Such an approach is not of little consequence.⁶³

BIBLIOGRAPHY

- Brzozowski A., [in:] K. Pietrzykowski (ed.), *Kodeks cywilny*, Vol. I: *Komentarz. Art. 1–449*¹⁰, Warszawa 2015.
- Czachórski W., Brzozowski A., Safjan M., Skowrońska-Bocian E., *Zobowiązania. Zarys wykładu*, Warszawa 2009.
- Dąbrowska J., *Charakter prawny bitcoin*, *Człowiek w cyberprzestrzeni* No. 1, 2017.
- Dybowski T., Pyrzyńska A., [in:] Łętowska E. (ed.), *System Prawa Prywatnego*, Vol. 5: *Prawo zobowiązań – część ogólna*, Warszawa 2006.
- Gruszecki T., *Teoria pieniądza i polityka pieniężna. Rys historyczny i praktyka gospodarcza*, Kraków 2004.
- Grzybowski S., [in:] S. Grzybowski (ed.), *System Prawa Cywilnego*, Vol. I: *Część ogólna*, Wrocław 1985.
- Habryn-Chojnacka E., [in:] M. Gutowski (ed.), *Kodeks cywilny*, Vol. II: *Komentarz do art. 450–1088*, Warszawa 2016.
- Kocot W.J., *Kontrakty kreatywne – nowy rozdział w cyberewolucji prawa umów*, [in:] T. Targosz, P. Podrecki, P. Kostański (eds), *Experientia docet. Księga jubileuszowa ofiarowana Pani Profesor Elżbiecie Traple*, Warszawa 2017.
- Lemkowski M., [in:] M. Gutowski (ed.), *Kodeks cywilny*, Vol. I: *Komentarz. Art. 1–449*¹¹, Warszawa 2016.
- Machnikowski P., [in:] E. Gniewek, P. Machnikowski (eds), *Kodeks cywilny. Komentarz*, Warszawa 2014.
- Michna M., *Bitcoin jako przedmiot stosunków cywilnoprawnych*, Warszawa 2018.
- Olejniczak A., [in:] Kidyba A. (ed.), *Kodeks cywilny*, Vol. III: *Zobowiązania. Część ogólna*, Warszawa 2014.
- Piotrowska A., *Bitcoin a definicja i funkcje pieniądza*, *Annales UMCS* No. 3, 2014.
- Radwański Z., Olejniczak A., *Zobowiązania – część ogólna*, Warszawa 2014.
- Schaal P., *Pieniądz i polityka pieniężna*, Warszawa 1996.
- Zacharzewski K., *Bitcoin jako przedmiot stosunków prawa prywatnego*, *Monitor Prawniczy* No. 21, 2014.

⁶³ For example, it can be indicated that recognition of bitcoin as private money, by analogy, carries a possibility of referring the institution of maximum interest to it. On the other hand, definite exclusion of the features of money creates a possibility of making reservations concerning penal damages, which are not subject to equivalent limits.

- Zacharzewski K, *Praktyczne znaczenie bitcoina na wybranych obszarach prawa prywatnego*, Monitor Prawniczy No. 4, 2015.
- Zoll F., [in:] A. Olejniczak (ed.), *System Prawa Prywatnego*, Vol. 6: *Prawo zobowiązań – część ogólna*, Warszawa 2018.
- Żmij G., *Prawo waluty*, Warszawa 2002.

BITCOIN VERSUS MONEY: CIVIL-LAW ANALYSIS OF THE CONCEPT

Summary

The article attempts to conduct a civil-law based analysis of bitcoin, which is the most representative example of the so-called cryptocurrencies. The unit, like money, fulfils the payment and exchange functions, becoming an alternative to traditional currencies. This circumstance justifies the need to consider whether bitcoin can be recognised as money. Therefore, it has been analysed against the background of the concept of money. The presented study has made it possible to assume that bitcoin constitutes private money. This, in turn, opens the possibility of assessing the manner of settling a liability expressed in a bitcoin unit, e.g. partially through the prism of the institutions typical of pecuniary payments. Such an approach is the only one that does not distort the essence of bitcoin, which was originally intended to be an alternative to legal money.

Keywords: bitcoin, money, currency, legal tender, cryptocurrency, legal money, private money

BITCOIN A PIENIĄDZ – CYWILNOPRAWNA ANALIZA POJĘCIA

Streszczenie

W niniejszym artykule podjęto próbę cywilnoprawnej analizy *bitcoin*, stanowiącego najbardziej reprezentatywny przykład tzw. kryptowaluty. Jednostka ta – podobnie jak pieniądź – pełni funkcję płatniczą, wymiany, stając się alternatywą dla tradycyjnej waluty. Okoliczność ta uzasadniła potrzebę rozważania, czy bitcoin może być uznany za pieniądź. W związku z tym został on przeanalizowany na tle pojęcia pieniądza. Prowadzone rozważania pozwoliły przyjąć, że bitcoin stanowi pieniądź prywatny. To z kolei otwiera możliwość podjęcia próby oceny sposobu spełnienia świadczenia wyrażonego w jednostce bitcoin przez częściowy chociażby pryzmat instytucji właściwych dla świadczeń pieniężnych. Takie spojrzenie, jako jedyne, nie wypacza bowiem istoty bitcoin, które w swym założeniu stanowić miało alternatywę dla pieniądza legalnego.

Słowa kluczowe: bitcoin, pieniądź, waluta, środek płatniczy, kryptowaluta, pieniądź legalny, pieniądź prywatny

BITCOIN Y DINERO – EL ANÁLISIS CIVIL-JURÍDICO DEL CONCEPTO

Resumen

El presente artículo intenta analizar bitcoin desde el punto de vista civil-jurídico. Bitcoin es un ejemplo más representativo de la criptomoneda. Esta unidad – de forma similar como el dinero – desempeña función de pago, intercambio, convirtiéndose en una alternativa para monedas tradicionales. Esta circunstancia fundamenta la necesidad de valorar si bitcoin puede ser considerado una moneda. Por lo tanto, fue analizado en relación con el concepto de la moneda. El análisis lleva a la conclusión que bitcoin es una moneda privada. Esto abre la posibilidad de un intento de valorar el cumplimiento de la prestación expresada en unidad bitcoin desde la perspectiva de instituciones propias para prestaciones dinerarias. Tal punto de vista, como único, no vicia la naturaleza de bitcoin que fue creado como alternativa a la moneda legal.

Palabras claves: bitcoin, moneda, divisa, medio de pago, criptomoneda, moneda legal, moneda privada

БИТКОЙН И ДЕНЬГИ – ГРАЖДАНСКО-ПРАВОВОЙ АНАЛИЗ КОНЦЕПЦИИ

Резюме

В этой статье была предпринята попытка анализа биткойна в гражданском праве, который является наиболее представительным примером так называемой криптовалюты. Эта единица – так же, как и деньги – выполняет функцию оплаты, обмена, превращаясь в альтернативу традиционным валютам. Это обстоятельство оправдало необходимость рассмотреть вопрос о том, можно ли считать биткойн деньгами. Поэтому он был проанализирован на фоне понятия денег. Проведенные рассуждения позволили предположить, что биткойн – это частные деньги. Это, в свою очередь, открывает возможность попытаться оценить, по крайней мере частично, через призму учреждений, компетентных в предоставлении денежных услуг, каким образом должна быть выполнена услуга, выраженная в биткойн-единице. Такой взгляд, как единственный, не искажает сущность биткойна, который по своему предположению должен был стать альтернативой легальным деньгам.

Ключевые слова: биткойн, деньги, валюта, платежные средства, криптовалюта, легальные деньги, частные деньги

BITCOIN UND GELD – ZIVILRECHTLICHE ANALYSE DES KONZEPTS

Zusammenfassung

In diesem Artikel wurde ein Versuch zur zivilrechtlichen Analyse von Bitcoin unternommen, die das repräsentativste Beispiel für die sogenannte Kryptowährung ist. Diese Einheit übernimmt – genau wie das Geld – die Funktion des Zahlungsverkehrs, des Umtauschs und wird zu einer Alternative zu herkömmlichen Währungen. Dieser Umstand rechtfertigte die Notwendigkeit zu kontrollieren, ob Bitcoin als Geld betrachtet werden kann. Daher wurde es aus der Sicht des Geldbegriffs analysiert. Die durchgeführten Überlegungen ließen vermuten, dass Bitcoin Privatgeld ist. Dies eröffnet wiederum die Möglichkeit, selbst durch ein Teilprisma

der für Geldleistungen zuständigen Institution zu beurteilen, wie der in der Bitcoin-Einheit ausgedrückte Vorteil erreicht wird. Ausschließlich eine solche Sichtweise verzerrt nicht das Wesen von Bitcoin, das in seiner Annahme eine Alternative zum Geld sein sollte.

Schlüsselwörter: Bitcoin, Geld, Währung, Zahlungsmittel, Kryptowährung, legales Geld, Privatgeld

LE BITCOIN ET LA MONNAIE – ANALYSE DE DROIT CIVIL DU CONCEPT

Résumé

Dans cet article, l'auteur a tenté de faire une analyse de droit civil du bitcoin, qui est l'exemple le plus représentatif de la soi-disant cryptomonnaie. Tout comme la monnaie, cette unité remplit la fonction de moyen de paiement, d'échange, devenant une alternative aux devises traditionnelles. Cette circonstance justifiait la nécessité de déterminer si le bitcoin pouvait être considéré comme la monnaie. Par conséquent, il a été analysé dans le contexte du concept de la monnaie. Les considérations conduites ont permis de supposer que le bitcoin est une monnaie privée. Ceci, à son tour, offre la possibilité d'essayer d'évaluer la manière dont la prestation exprimée dans l'unité de bitcoin est réalisée, même à travers un prisme partiel de l'institution compétente pour les prestations en espèces. Ce point de vue ne déforme pas l'essence du bitcoin, qui, dans son hypothèse, devait être une alternative à la monnaie légale.

Mots-clés: bitcoin, monnaie, devise, moyen de paiement, cryptomonnaie, monnaie légale, monnaie privée

IL BITCOIN E LA MONETA: ANALISI DEL CONCETTO DAL PUNTO DI VISTA DEL DIRITTO CIVILE

Sintesi

Nel presente articolo si è intrapreso un tentativo di analisi del bitcoin, che costituisce l'esempio più rappresentativo delle cosiddette criptovalute, dal punto di vista del diritto civile. Il bitcoin, analogamente alla moneta, svolge una funzione di pagamento, di scambio, divenendo un'alternativa alle valute tradizionali. Tale circostanza ha motivato la necessità di valutare se il bitcoin possa essere considerato moneta. In relazione a ciò è stato analizzato sullo sfondo del concetto di moneta. Sono state condotte considerazioni che hanno permesso di assumere che il bitcoin costituisce una moneta privata. Questo a sua volta apre la possibilità di tentare di valutare la modalità di adempimento della prestazione espressa in unità bitcoin, da parte di un prisma almeno parziale di istituzioni competenti per le prestazioni in denaro. Solo tale punto di vista non distorce infatti l'essenza del bitcoin, che è nato per costituire un'alternativa alla moneta legale.

Parole chiave: bitcoin, moneta, valuta, mezzo di pagamento, criptovaluta, moneta legale, moneta privata

Cytuj jako:

Goldiszewicz A., Bitcoin versus money: civil-law analysis of the concept [*Bitcoin a pieniądz – cywilnoprawna analiza pojęcia*], „*Ius Novum*” 2019 (Vol. 13) nr 3, s. 195–209. DOI: 10.26399/iusnovum.v13.3.2019.37/a.goldiszewicz

Cite as:

Goldiszewicz, A. (2019) 'Bitcoin versus money: civil-law analysis of the concept'. *Ius Novum* (Vol. 13) 3, 195–209. DOI: 10.26399/iusnovum.v13.3.2019.37/a.goldiszewicz